Abstract

The cognitive enrichment study investigated whether engagement in challenging cognitive activity was associated with changes in performance in memory skill among older adults. A sample of 63 independent community-living individuals (age range: 63 to 91 years) was recruited for the study. After attrition, 46 participants remained. Participants completed two surveys, the Self-Regulation Inventory (SRI) and the Satisfaction with Life Scale (SWLS), prior to taking two cognitive tests: the Ospan and the Wisconsin Card Sorting Test (WCST). Control participants were dismissed for 8 weeks whereas experimental participants were introduced to an online learning site and were instructed to select topics and study lessons for at least 60 minutes a week over the 8-week span. Following the intervention, all participants completed posttests on the cognitive measures. Twenty-nine experimental and 17 control participants completed the study. MANOVAs were conducted to determine if participant involvement in the learning intervention was related to changes in memory skill. Using the Ospan measure, levels of memory skill were compared in the two groups: experimental and control. There was a statistically significant effect of treatment on the Ospan scores: $\Lambda = .780$, $F(3, 41) = 3.86$, $p = .016$. The Wisconsin Card Sorting Test (WCST) was used to evaluate executive functioning and set shift response. Mean differences in the MANOVA did not reach statistical significance at $p < .05$. Total scores for self-regulation (SRI) and life satisfaction (SWLS) were correlated $r = .339$ ($p < .05$). The findings support the hypothesis that the treatment can produce improvement in general memory skill. Based on the study design, it appears that active self-regulated involvement of older adults in a challenging cognitive activity for at least 60 minutes each week enhanced cognitive functioning in terms of memory accuracy.

Keywords: Cognitive enrichment; memory; aging; self-regulation; life satisfaction; cognitive skill; lifelong development